

ABSTRACT

A polishing slurry comprises a metal-oxidizing agent, a metal anticorrosive agent, an oxidized metal dissolving agent and water. The oxidized metal dissolving agent is at least one kind selected from the group consisting of an acid in which the dissociation constant (pKa) of a first dissociable acid group is 3.5 or more, an ammonium salt of the acid and an organic acid ester of the acid. The pH of the polishing slurry is within the range of 3 to 4. The concentration of the metal-oxidizing agent is within the range of 0.01 to 3 percent by weight. In the wiring-formation process of the semiconductor device, the conductor used for the barrier layer can be polished at a high polishing rate by using the polishing slurry having the low polishing particle concentration and the low metal anticorrosive agent concentration.